



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,056	10/29/2003	Kyung-Oun Jang	18865K-013900US	7761
20350	7590	01/18/2005	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			RILEY, SHAWN	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 01/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/698,056

Applicant(s)

JANG ET AL.

Examiner

Shawn Riley

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-10 and 12-18 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date April 04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Specification*

1. Applicant(s) is(are) reminded of the proper language and format for an abstract of the disclosure.

2. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," "What is disclosed", "The invention relates to", "**In accordance with an embodiment of the invention**", "Methods and apparatus are provided", "The present invention provides", "According to the invention", "The objective of the invention", or like phrases, etc. Correction is required. See MPEP § 608.01(b).

### *Claim Objections*

1. Claim 11 is objected to because of the following informalities: it is assumed for examination purposes that claim 11 was meant to depend on claim 5. Appropriate correction is required.

### *Claim Rejections - 35 U.S.C. § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2838

2. Claim 1 is rejected under 35 U.S.C. §102(b) as being fully anticipated by Naveed et al. (U.S. Patent 5,982,640). Naveed et al. shows,<sup>1</sup> (in, e.g., the(ir) figures and corresponding disclosure)

1. A switching mode power supply comprising: a rectifier (REC) configured to convert AC power to a first DC power; an output unit configured to convert the first DC power ( $V_{CCA}$ , based on C11) to a second DC power (output of 84) under the control of a first switch (TR11); and a pulse width modulation generator (Controller IC) coupled to control the first switch, the pulse width modulation generator having a regulator configured to regulate the first DC power (within IC), the regulated first DC power powering the pulse width modulation generator, the regulator comprising a second switch (SW4/SW5) coupled to control a transmitter so that when the second switch is in a first state the transmitter transmits the first DC power ( $V_{CCA}$ ) to a capacitor (C15) to charge the capacitor, and when the switch is in a second state the transmitter does not transmit the first DC power to the capacitor to thereby allow the charge in the capacitor to reduce (see, e.g., column 5 lines 32-47).

---

<sup>1</sup> Note claims will be addressed individually and the material in parentheses are the examiner's annotated comments. Further unless needed for clarity reasons, recited limitation(s), will be annotated only upon their first occurrence. Annotated claims begin with the phrase "As to claim". Claims that are not annotated are seen as having already had the invention(s) addressed previously in an annotated claim. Bolded words/phrases indicate rejected material based 112 paragraph rejections. Underlined words/phrases indicate objected to material. For method claims, note that under MPEP 2112.02, the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986). Therefore the previous rejections based on the apparatus will not be repeated.

Art Unit: 2838

*Allowable Subject Matter*

3. Claim 11 is objected to as being but would be allowable if rewritten in to depend on claim 5. Claims 2-4 are objected to as being based on a rejected claim but would be allowable if made independent with the contents of claim 1.

4. Claims 5-10 and 12-18 are allowable over the prior art of record.

5. As allowable subject matter has been indicated, applicant's response must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 C.F.R. § 1.111(b) and section 707.07(a) of the M.P.E.P.

6. The following is an examiner's statement of reasons for allowance: No prior art uncovered anticipates or renders obvious applicant(s) claimed the regulator further comprises a power supply voltage manager (including 56/32/48/etc in figure 9) configured to bias the second switch so that during normal mode of operation the regulated first DC power is maintained at a substantially constant voltage level

Further, no prior art uncovered anticipates or renders obvious applicant(s) claimed the circuitry and intercepting the first power applied to the first capacitor when the level of the second power is greater than a second level; a PWM generation unit for generating the PWM signals and supplying them to the first switch; and a UVLO (under-voltage lockout)/bandgap unit for starting operation when the second power reaches a predetermined level, and controlling the operation of the PWM generation unit.

Art Unit: 2838

Further, no prior art uncovered anticipates or renders obvious applicant(s) claimed circuitry including an intercepting the path when the power supply voltage is greater than a second level; and a switch core for controlling on/off operations of the switch according to an enable signal supplied by the UVLO/bandgap unit; an oscillator for generating clock signals according to operation by the UVLO/bandgap unit; and a PWM generation unit for generating the PWM signals according to the clock signals.

Further, no prior art uncovered anticipates or renders obvious applicant(s) claimed circuitry including an an oscillator for generating clock signals according to control by the UVLO/bandgap unit; and a PWM generation unit for generating the PWM signals according to the clock signals supplied by the oscillator, wherein the high-voltage regulator supplies the DC power to the capacitor when the level of the voltage charged in the capacitor is less than a first level, and intercepts the DC power supplied to the capacitor when the level of the voltage charged in the capacitor is greater than a second level.

### ***Conclusion***

Any inquiry from other than the applicant/attorney of record concerning this communication or earlier communications from the Examiner should be directed to the Patent Electronic Business Center (EBC) at 1.866.217.9197. Any inquiry from a member of the press concerning this communication or earlier communications from the Examiner or the application should be directed to the Office of Public Affairs at 703.305.8341. Any inquiry from the applicant or an attorney of record concerning this communication or earlier communications from the Examiner should be directed to Examiner Riley whose telephone number is 571.272.2083. The Examiner can normally be reached Monday through Thursday from 7:30-6:00 p.m. Eastern Standard Time. The Examiner's Supervisor is Mike Sherry who can be reached at 571.272.2084. Any inquiry about a case's location, retrieval of a case, or receipt of an amendment into a case or information regarding sent correspondence to a case **should be directed to 2800's Customer Service Center** at 571.272.2815. Any papers to be sent by fax

Art Unit: 2838

MUST BE sent to fax number 703.872.9306. Any inquiry of a general nature of this application should be **directed to the Group receptionist** whose telephone number is 571.272.2800. Status information of cases may be found at <http://pair-direct.uspto.gov> wherein unpublished application information is found through private PAIR and published application information is found through public PAIR. Further help on using the PAIR system is available at 1.866.217.9197 (Electronic Business Center).

January 05



*Shawn Riley*  
*Primary Examiner*